

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Jerome M. Eldridge et al.

ATOMIC LAYER DEPOSITION OF METAL OXIDE AND/OR LOW ASYMMETRICAL Title: TUNNEL BARRIER INTERPOLY INSULATORS

Docket No.: 1303.045US1

Serial No.: 10/081,818

Filed:

February 20, 2002

Due Date: N/A

Examiner:

Tu-Tu V. Ho

Group Art Unit: 2818

MS Amendment

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

We are transmitting herewith the following attached items (as indicated with an "X"):

Return postcard.

Communication Concerning Related Applications (1 pg.).

Supplemental Information Disclosure Statement (2 pgs.), Form 1449 (1 pg.), and copies of 3 cited documents.

If not provided for in a separate paper filed herewith, Please consider this a PETITION FOR EXTENSION OF TIME for sufficient number of months to enter these papers and please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

Customer Number 21186

Atty: Timothy B. Clise Reg. No. 40,957

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this day of February, 2007.

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

(GENERAL)

N 10/081,818

PATENT

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Title:

ATOMIC LAYER DEPOSITION OF METAL OXIDE AND/OR LOW

ASYMMETRICAL TUNNEL BARRIER INTERPOLY INSULATORS

COMMUNICATION CONCERNING RELATED APPLICATIONS

MS Amendment

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Alexandria, VA 22313-1450

Applicants would like to bring to the Examiner's attention the following related applications in the above-identified patent application:

Serial/Patent No. 11508090	Filing Date/Issue Date August 22, 2006	Attorney Docket 1303.024US4	<u>Title</u> FLOATING GATE STRUCTURES
11590363	October 31, 2006	1303.014US3	FLASH MEMORY WITH LOW TUNNEL BARRIER INTERPOLY INSULATORS
11565826	December 1, 2006	1303.141US2	HAFNIUM TITANIUM OXIDE FILMS
11619080	January 2, 2007	1303.027US4	IN SERVICE PROGRAMMABLE LOGIC ARRAYS WITH LOW TUNNEL BARRIER INTERPOLY INSULATORS

Continuations and divisionals may be later filed on the cases listed above, or cited to the Examiner in any previous Communication Concerning Related Applications. Applicants request that the Examiner review all continuations and divisionals of the above-listed or previously-cited patent applications before allowing the claims of the present patent application.

Respectfully submitted,

JEROME M. ELDRIDGE ET AL.

By Applicants' Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

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Date

Timothy B. Clise

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Vismo Vismo

Signature



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Applicant: Jerome M. Eldridge et al.

Examiner:

Tu-Tu V. Ho

Serial No.:

10/081,818

Group Art Unit:

2818

Filed:

February 20, 2002

Docket:

1303.045US1

Title:

ATOMIC LAYER DEPOSITION OF METAL OXIDE AND/OR LOW ASYMMETRICAL TUNNEL BARRIER INTERPOLY INSULATORS

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

MS Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with 37 C.F.R. §§ 1.97 et. seq., the enclosed materials are brought to the attention of the Examiner for consideration in connection with the above-identified patent application. Applicants respectfully request that this Supplemental Information Disclosure Statement be entered and the documents listed on the attached Form 1449 be considered by the Examiner and made of record. Pursuant to the provisions of MPEP 609, Applicants request that a copy of the 1449 form, initialed as being considered by the Examiner, be returned to the Applicants with the next official communication.

Pursuant to 37 C.F.R. §1.97(b), it is believed that no fee or statement is required with the Supplemental Information Disclosure Statement. However, if an Office Action on the merits has been mailed, the Commissioner is hereby authorized to charge the required fees to Deposit Account No. 19-0743 in order to have this Supplemental Information Disclosure Statement considered.

Pursuant to 37 C.F.R. 1.98(a)(2), Applicant believes that copies of cited U.S. Patents and Published Applications, and Non-Published Applications identifiable by USPTO Serial Number, are no longer required to be provided to the Office. Notification of this change to this effect was provided in the United States Patent and Trademark Office OG Notices dated October 12, 2004 and October 19, 2004. Thus, Applicant has not included copies of any US Patents or US Patent Applications identifiable by serial number that may be cited with this submission. Should the Office require copies to be provided, Applicant respectfully requests that notice of such requirement be directed to Applicant's below-signed representative. Applicant acknowledges the

requirement to submit copies of foreign patent documents and non-patent literature in accordance

The Examiner is invited to contact the Applicants' Representative at the below-listed telephone number if there are any questions regarding this communication.

Respectfully submitted,

JEROME M. ELDRIDGE ET AL.

By their Representatives,

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with 37 C.F.R. 1.98(a)(2).

Timothy B. Clise

Reg. No. 40,957

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US Patent & Tredeman Office: U.S. DEPARTMENT OF COMMERCE
er the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unress it contains a valid OMB control number. Substitute for form 1449A/PTO Complete if Known INFORMATION DISCLOSURE 10/081,818 **Application Number** STATEMENT BY APPLICANT (A) (Use as many sheets as necessary) Filing Date February 20, 2002 Eldridge, Jerome **First Named Inventor Group Art Unit** 2818 **Examiner Name** Ho, Tu-Tu Attorney Docket No: 1303.045US1

	US PATENT DOCUMENTS						
Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Filing Date If Appropriate			
	US-5,042,011	08/20/1991	Casper, Stephen L., et al.	05/22/1989			
	US-5,280,205	06/18/1994	Green, Robert S., et al.	04/16/1992			
	US-5,497,494	03/05/1996	Combs, James L., et al.	07/23/1993			
	US-5,619,642	04/08/1997	Nielsen, Michael E., et al.	12/23/1994			
	US-5,627,785	05/06/1997	Gilliam, Gary R., et al.	03/15/1996			
,	US-5,691,230	11/25/1997	Forbes, Leonard	09/04/1996			
	US-6,134,175	10/17/2000	Forbes, Leonard, et al.	08/04/1998			
	US-6,135,175	10/24/2000	Gaudreault, Pierre, et al.	10/19/1998			
	US-6,153,468	11/28/2000	Forbes, Leonard , et al.	05/17/1999			
	US-6,249,020	06/19/2001	Forbes, Leonard , et al.	08/27/1998			
-	US-6,307,775	10/23/2001	Forbes, Leonard , et al.	08/27/1998			
	US-6,323,844	11/27/2001	Yeh, Fu-Kuo, et al.	08/11/1997			
	US-6,351,411	02/26/2002	Forbes, Leonard , et al.	06/12/2001			

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	T ²		

	OTHER	R DOCUMENTS NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
		AHN, KIE Y., et al., "MAGNESIUM TITANIUM OXIDE FILMS", U.S. Application	
	l	Serial No. 11/189,075, filed July 25, 2005 (Attorney Docket 1303.148US1)	
		HODGES, D. A., et al., "Analysis and Design of Digital Integrated Circuits",	
		McGraw-Hill Book Company, 2nd Edition, (1988),394-396	
		HODGES, D. A., "Analysis and Design of Digital Integrated Circuits, 2nd	
		Edition", McGraw-Hill Publishing. New York, (1988),354-357	
		SHI, YING, et al., "Tunneling leakage current in ultrathin (<a4 nitride="" nm)="" oxide<="" td=""><td></td></a4>	
		stack dielectrics", IEEE Electron Device Letters, 19(10), (1998),388-390	

EXAMINER

DATE CONSIDERED